TITLE

A qualitative study exploring community pharmacists' awareness of, and contribution to, self-care support in the management of long-term conditions in the United Kingdom

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ABSTRACT

Background

Self-care support refers to activities aimed at educating, training and empowering patients with skills and ability to manage [and monitor] their long-term conditions (LTCs). While self-care support by healthcare professionals has emerged as a distinct concept in the management of LTCs, evidence of community pharmacy's contribution is sparse.

Objective

The aim was to explore community pharmacy's contribution to self-care support of LTCs. The objectives were to explore how community pharmacists conceptualise self-care support of LTCs and how they operationalise the core elements of this in their practice.

Methods

Semi-structured interviews were conducted with community pharmacists in England (n=12) and Scotland (n=12). A framework consisting of the core elements of self-care support (information and advice; skills training and support; technology; support networks; and collaborative care planning) was developed from the literature and was used to structure the interviews and analysis. Analysis was done thematically using the interpretative phenomenological analysis technique.

Results

The three main themes that emerged were conceptualisation; operationalisation of the core elements; and barriers to providing self-care support. Participants conceptualised self-care of LTCs as patients taking responsibility for their own health, performing activities that improved their LTCs and that enabled them to become more independent in managing their LTCs. Their views on self-care support did not reflect this conceptual understanding but was described primarily as providing patients with information and advice rather than actively supporting them. Participants' views of operationalising the core elements of self-care support was found to be medicines focussed, opportunistic and dependent on the services they provided, rather than being patient-centred and proactive. The barriers to providing self-care support of LTCs in community pharmacy were described as priority accorded to dispensing activities, the structure of the community pharmacy contract, lack of incentives to provide self-care support and patients' expectations and lack of awareness of community pharmacy's role in LTCs management.

Conclusion

Community pharmacists' theoretical understanding of self-care was not reflected in the ways that they portrayed their contributions to self-care support. The current ways in which community pharmacy delivers its services for patient care may need to be re-configured in order to fit into the holistic self-care support paradigm.

KEY WORDS

Self-care; self-care support; community pharmacy; long-term condition; healthcare professional; collaborative care planning

ARTICLE SYNOPSIS

This article presents the findings of a qualitative study that used semi-structured interviews to explore how community pharmacists conceptualised and operationalised the concept of self-care support of long-term conditions (LTCs). The findings suggest that participants' conceptualised self-care from a holistic perspective, but did not reflect this in how they described their support roles. Instead, their self-care support roles were described as being primarily about providing patients with information and advice, and not actively supporting them. Participants' views on the core elements of self-care support indicated that their roles were medicines-focussed and opportunistic, rather than patient-centred and proactive.

INTRODUCTION

Self-care support: A paradigm shift in the management of LTCs

The term 'self-care', i.e. the care of oneself, refers to the everyday activities of individuals that affect their health, for example, adopting healthy lifestyles like exercising to maintain health, ensuring proper living hygiene to protect health and self-medicating to restore health.[1] For people with long-term conditions (LTCs), a number of these tasks can be complex and challenging, including managing the appropriate use of their own medicines, and it sometimes requires a drastic change in ways of living.[2] Consequently, many people with LTCs require support, which enables them to take

responsibility for improving their health outcomes through the actions and decisions they make in their daily living.[3,4] This is referred to as 'self-care support' (also self-management support), and is now a central component of many models of LTCs management. Self-care support is not a new concept,[5] but it has evolved with increasing acknowledgment that the current model of care, which focuses on acute, episodic care, will not meet the future demands of LTCs.[6] According to the Department of Health in the United Kingdom (UK), about 70 - 80 % of the population of people living with LTCs require self-care support.[7]

There is ample evidence to indicate that self-care support works,[8] although there are divided opinions on how best to engage in it; whether through lay-led interventions[9] vs. healthcare professional-led interventions;[10] disease-specific vs. generic interventions;[11,12] or individual vs group programmes.[13] One of the underlying principles of most successful self-care interventions is that they are underpinned by theories of behaviour change,[14] such as the self-regulation or common sense model,[15] the social cognitive theory,[16] the theory of planned behaviour[17] and the transtheoretical ('stages of change') model.[18]

In the UK, health policy has been evolving radically with a key priority on inculcating patient-centred self-care support into the culture and practice of health-care professionals (HCPs).[19] Successive UK governments have attempted to restructure and reform how the National Health Service (NHS), the main, publicly funded healthcare provider in the UK, organises and delivers care to people with LTCs. Self-care support is a key component of the NHS model for the management of LTCs outlined in 2006.[20] This model, adapted from the widely accepted chronic care model,[21] emphasises the key roles that patients play in the success or failure of their own treatment and care.[22] It also advocates for a change in the current HCP-patient relationship and interaction, from the traditional paternalistic approach, to one that puts patients at the centre of their own care and one that supports them to undertake self-care.[23] Self-care support involves all activities aimed at educating, training and empowering patients with skills and ability to monitor their conditions in order to maintain a satisfactory quality of life.[24]

Managing LTCs in community pharmacy; is there a place for self-care support?

The role of community pharmacists worldwide is evolving from a traditional 'backroom' dispensing role to one where pharmacists are now front-facing and getting actively involved in patient care, particularly for people with LTCs.[25] In the UK, community pharmacy supply patients with their prescribed medicines through dispensing and repeat/serial dispensing services, in addition to playing expanded roles of supporting patients to get the best out of their medicines and improve their health

outcomes. The role expansion of community pharmacists has seen an increase in the range of services targeted at people with LTCs being developed, commissioned and delivered in community pharmacies. However, due to the devolution of some legislative powers to the individual countries of the UK (England, Scotland, Wales and Northern Ireland), there are some differences in the way that services targeted at LTCs are organised in the community pharmacy contractual framework in the 4 countries. The Medicines Use Reviews (MURs) and the New Medicine Service (NMS) are the foremost LTC services in community pharmacy in England while it is the Chronic Medication Service (CMS) in the Scotland.[26,27] In addition to providing these LTC services, community pharmacists are also required to provide patients with advice when dispensing their prescribed medicines[28]

Although the ways that the MUR, NMS and CMS are structured and operationalised are different, they all essentially aim to extend the roles of pharmacists in patients' medication and disease management with the objectives of improving patients' knowledge, understanding and adherence to medications therapy to improve health outcomes.[26,29] The MUR introduced in 2005 and the NMS introduced in 2011, are advanced services in the community pharmacy contract in England, meaning that community pharmacists can choose whether or not to provide them. The MUR service targets LTC patients on certain types of medicines or those recently discharged from hospital while the NMS targets particular groups of patients on newly prescribed medicines. Community pharmacists need to be trained and accredited to provide both the MUR and NMS and remuneration for these services is based on a 'fee-per-service' model, where payment is based on meeting a set target on the number of MUR/NMS undertaken.[30] On the other hand, the Scottish CMS, introduced in 2010, is offered at all pharmacies across Scotland and requires patients with LTCs to voluntarily register with a community pharmacy of their choice to receive pharmaceutical care as part of a shared agreement between the patient, the pharmacists and the doctor.[29] Community pharmacists are trained and supported to provide the CMS by their local health boards and by the NHS Education for Scotland Pharmacy.[31] The CMS relies on electronic systems in place in Scotland and remuneration is based on a 'capitation model' of payment.[31]

In other parts of the world, there are comparable, albeit differently organised and delivered services. For example, in the United States (US), there is the Medications Therapy Management (MTM);[32] while in Australia, there is a similar MUR service (MedsCheck) in addition to different disease state management interventions such as Diabetes Medication Assistance Service (DMAS)[33] and the Pharmacy Asthma Care Program (PACP).[34]

The evidence base for these medicines management services, and their impacts and benefits on improving clinical, economic and humanistic outcomes are inconclusive. For example, while some evidence from the UK suggest that services such as the NMS improves outcomes like patients adherence to medicines,[35] some other studies have suggested that community pharmacists' contributions to the care of LTCs is growing but have yet to be fully realised.[36,37] Whereas, evidence emanating from evaluation of interventions such as the MTM, DMAS and PACP indicate that community pharmacy's contributions are significant and valuable in improving a whole range of outcomes.[38-41] A recent systematic review and meta-analysis of pharmacist-led medication review however found some benefits of pharmacists' interventions on outcomes such as improved clinical outcomes, reduced hospitalization and reduced mortality.[42]

Self-care support as a concept in the management of LTCs is not a language that is commonly used in community pharmacy.[43] The roles of HCPs and primary care teams in self-care support of LTCs have been explored extensively in the field of medicine and nursing, and evidence indicates that this has significant benefits.[8] However, there is very little published evidence in pharmacy practice.[43] The majority of the published work in pharmacy has focused on very specific aspects such as medication reviews,[36] medication management,[44] adherence to medications,[45] and disease-specific interventions.[46] Self-care of LTCs by HCPs is however described as a much more multidimensional holistic concept that looks at how care is provided to the patient as a whole not as separate, single, disease-specific interventions.[47]

Study aim and objectives

The overall aim of this study was to explore the contribution of community pharmacy to providing self-care support to patients with long-term conditions (LTCs). The objectives were to explore how community pharmacists conceptualise self-care support of LTCs and how they operationalise the core elements of this in their practice.

METHODS

Identifying the core elements of self-care support of LTCs

Early on in this research study, a narrative review of the literature was undertaken to identify the different aspects of self-care support of LTCs that have been published. This review highlighted the

paucity of published evidence on self-care support of LTCs in the pharmacy literature. Most of the key self-care evidence were published in the medical, nursing and psychology literature, as well as in Government policy papers. A scoping and synthesis of the key literature and government policy papers[3,8,13,19,20,48-60 45,61-68]identified from this narrative review process led to the development a single framework that brought together the core elements of self-care support of LTCs (Figure 1). This framework emerged after the literature was examined to identify and summarise the overarching themes in the self-care support interventions. The elements of self-care support in this framework also reflect the broad research interest areas and interventions around self-care support. A brief description of each of the core elements in this framework is provided below.

Figure 1 – Core elements of self-care support of long-term conditions (LTCs)

Collaborative care planning

Collaborative care planning refers to the collaborative interaction between patients and HCPs, where the perspectives and expertise of both are shared and used to provide personalised care and support.[50] Collaborative care planning is the central element of the framework and reflects its central role in enhancing the effectiveness of the other elements of self-care support. Self-care support interventions that embed collaborative care planning utilise behaviour change techniques such as motivational interviewing and health coaching[51-53] to target specific patient outcomes such as self-efficacy. Collaborative care planning is aligned with the principles of other concepts such as shared

decision-making,[54,55] patient engagement, involvement and partnership with HCPs,[56] patient-centred care[57] and patient empowerment.

Information and advice

Almost all self-care support interventions involve provision of information and advice through patient education to help to improve patients' knowledge and understanding of living with LTCs, and to enable them to engage in self-care.[8] While the nature and structure of information and advice provided to patients vary according to the type of LTC and the individual patient circumstances, the self-care education approach differs from the traditional patient education approach. The main distinction is that in self-care education, patients are provided with personalised and tailored information and advice based on individual needs (e.g. health literacy, health beliefs, etc.), while in the traditional approach, patients are provided with standardised, generic and sometimes unsolicited information and advice.[13]

Skills training and support

In addition to information and advice, some self-care support interventions aim to train and support patients to develop certain skills required managing and living with their LTCs. Some of these skills include self-monitoring skills,[8] coping skills to deal with, and respond to changes in LTC signs and symptoms,[58] self-administration of certain medicines such as inhalers,[59] and adherence and ability to effectively use prescribed medicines.[45]

Support networks

Many self-care support interventions involve patients coming together in groups and networks, where practical support and help about caring for LTCs are offered to patients with limited involvement of their HCPs.[60] Self-care support networks can be grouped into 3[61]; personal communities such as family/carers, friends, peers; non-HCP support such as social workers, health trainers; and voluntary and community groups that includes self-help support groups such as the Chronic Disease Self-Management Programme (CDSMP)[62] and the Expert Patient Programme.[63]

Technology

A wide range of technologies to improve self-care of LTCs is emerging and HCPs play a key role in supporting and encouraging patients to engage in these technologies. These technologies include information technologies,[64] mobile applications ('apps'),[65] web-based tools,[66] and assistive, 'smart'

home technologies.[67,68] These self-care support technologies are now being incorporated into many self-care support interventions that support people with LTCs at home.[67]

Study design

A qualitative approach was taken with the aim of uncovering how community pharmacists conceptualised self-care support and how they viewed and operationalise its core elements (Figure 1) in their practices. The use of semi-structured interviews allowed in-depth exploration of the ideas and views with individual pharmacists. This method was underpinned by the philosophical stance of phenomenology which proposes that the 'lived experience' of an individual can only be understood by obtaining a detailed account of the individual's reality.[69] The study adopted interpretative phenomenological analysis (IPA) approach (hermeneutics) to draw out the meaning of the accounts provided by community pharmacists, while also acknowledging and "bracketing" the preconceptions and role of the researchers.[70]

Study Setting

The study was set in the North West of England (Greater Manchester) and in 4 of the 32 council areas of Scotland (Glasgow, Dundee, Perth and Angus). Both England and Scotland were included in this study because of the differences in the ways that community pharmacy in both countries delivers their foremost LTC services.

Recruitment

Recruitment of participants into this study took place between January and July 2013. Recruitment and sampling was undertaken purposively allowing for maximal variation[71] in pharmacy types; multiples and independents, location; urban, rural, supermarket, geographical area; deprived, affluent, mixed and pharmacist demographics; ethnicity, age, gender. While there is no conventional guidance in determining the appropriate sample size for interviews in qualitative research, there is general agreement that the sample size should be determined when theoretical data saturation has been reached.[72] However, this study predetermined the sample size of participants (twelve participants each in England and Scotland) according to the recommendation of Guest et al to allow for the above mentioned maximal variation.[73] Data saturation was reached after the 10th interview in England and after the 8th interview in Scotland. All interviews were however included for analysis.

In England, community pharmacists were recruited by approaching them through Local Pharmaceutical Committees (LPCs), representing all community pharmacists within each of the 10 primary care trusts (PCTs) (now clinical commissioning groups) in Greater Manchester. An introductory email attached with the study's recruitment pack (containing a letter of invitation and participant information sheet) was sent to the coordinator/secretary of each LPC to forward to its members. Four LPCs responded to indicate that they had forwarded the study's recruitment pack to its members. Further participant recruitment was undertaken by randomly searching the NHS direct website for the contact details of community pharmacies located within each of the four LPCs that responded. Community pharmacists were then contacted and invited to take part in the study by email, telephone and/or post. Snowballing, which involved one participating pharmacist referring another pharmacist friend or colleague to participate was also employed in some cases to identify other potential participants.[74] A total of 55 community pharmacists were identified and approached with 12 successfully recruited and interviewed.

In Scotland, community pharmacists were recruited through contacts in the pharmacy departments at the Health Boards of NHS Tayside, NHS Greater Glasgow and Clyde, and NHS Lothian. The contacts were provided, via email, with the study's recruitment pack, which was then used to invite potential participants into the study. The names and contact details of 18 community pharmacists that were interested in taking part in the study were forwarded directly to the research team by the contacts that helped in identifying and recruiting them. Of the 18 potential participants, 12 successfully recruited and interviewed. The higher rate of success of recruitment in Scotland compared to England was due to the fact that potential participants in Scotland had already indicated interest in taking part in the study before being contacted by the researcher. This was not so in England.

Data collection

Semi-structured interviews were conducted by the lead researcher face-to-face at either the participants' place of work or other agreed location (e.g. coffee shops). Interviews with participants in England were conducted between January and July 2013 while interviews with participants in Scotland were conducted in April 2013. Interviews lasted between 40 and 70 minutes and were audio-recorded following written and signed consent. Handwritten notes were also taken during and after the interviews.

The interview topic guide

The interview topic guide (Box 1) was developed from existing literature on self-care support of LTCs with a key focus on the core elements of self-care support described above (figure 1). The guide

278 evolved iteratively as interviews progressed and made use of open-ended questions. Prompts and
279 cues were used extensively during the interviews, particularly during discussions around the core
280 elements of self-care support. This is described further under the relevant subsections of the results
281 section.

282 Box 1: The topic guide

Broad topic area	Primary questions/topic area
Background in community pharmacy	Can you provide me with an overview of education and career in community pharmacy? - Years of experience; postgraduate education; CPD and trainings undertaken, type(s) of practice and services offered?
Managing/supporting people with LTCs	Can you describe the nature and types of LTCs encountered in your practice? Most common ones? Single vs multiple morbidity?
	Can you describe your general approach to manage/support people with LTCs? Please use examples to illustrate this. - Interacting with LTC patients; roles of team members LTC services (MURs, NMS, CMS), lifestyle management, others
Knowledge and understanding of SC and SCS	Can you describe your understanding of the term 'self-care' in relation to LTCs? - What comes to mind? How do you think LTC patients undertake self-care? What does this entail?
	How do you support LTC patients to undertake self-care based on the way you have described it? - Can you use and example to illustrate this? When do you provide SCS? Opportunities for SCS? Who else is involved?
Operationalizing the 5 Elements of self-care support of LTCs	Information and advice - Nature of the pharmacist-patient interaction? Types of information and advice provided?; Assessing patients knowledge and understanding?
	Skills training and support - Supporting self-monitoring of LTCs signs and symptoms and supporting patients on coping?; Supporting self-monitoring with tools and devices?; Supporting self-administration of medicines (e.g. inhalers); supporting adherence to medicines?
	Support networks

	- Involving patients' family/carers?; Signposting/referring to support networks (online or in the community)? Other support groups?
	Self-care technology - Awareness and use of self-care technologies to support patients?; Internet resources and mobile/smart phone applications ('apps'); other technologies
	Collaborative care planning - Getting involved in care planning with patients and other HCPs?; Developing partnerships with patients; shared decision making; goals-setting and follow up; problem-solving; motivating patients; Use of behaviour change counselling approaches motivational interviewing and CBT?
Barriers to providing self-care support	What are the main barriers that hinder you from providing self-care support [for each of the core elements] for people with LTCs?

Data analysis

All audio files were stored digitally on a secure computer network drive. Interviews were transcribed verbatim and anonymised, and textual data were managed and retrieved using the QSR NVIVO software (version 10). Data analysis was done thematically[75] combined with the IPA technique.[76] IPA is not simply about categorisation of data, but it requires a close interaction between the researcher/analyst and the data.[77] The IPA approach was a cyclical and iterative process, and it involved familiarisation with the data by initially reading through the interviews, which led to a preliminary coding structure (broad categories with many themes and sub-themes). The framework for the elements of self-care support (figure 1) was used in the preliminary coding structure for relevant sections of the data to capture themes and subthemes that related to it. Connection of sub-themes and themes were then made, which involved shifting back and forth from themes and sub-themes in the data through close reading and re-reading of the text. The coding and interpretation process was a continuous and extensive review and modification of the current and emergent sub-themes, themes and categories, until a final summary structure was decided. The coding of the interview data was undertaken by the first author (OO) and the coding structure and interpretation was regularly reviewed and agreed by the co-authors.

Ethical consideration

The study received the NHS Research Ethics Committee (REC) approval and Research and Development (R&D) approvals/permission from NHS SalfoR+D in Greater Manchester in England and the relevant Health Boards in Scotland.

RESULTS

Presentation

Twelve interviews were conducted with community pharmacists in England, and another 12 in Scotland. Following a summary of participants' demography, findings are presented under 3 broad themes; conceptualization of self-care support; operationalization of the core elements of self-care support; and barriers to providing self-care support. Quotations are used to illustrate the findings from each emergent theme or subtheme. Early analysis in the study indicated that the views of both English and Scottish participants were very similar and so the findings are presented together. Each interview participants was given a unique identification number, with English community pharmacists coded as 'ECP' and Scottish as 'SCP'.

Participants

The demographic characteristics of the study participants are summarised in table 2. Participants worked in a wide range of locations; in rural to urban areas, in deprived and affluent areas, as well as on high streets and supermarkets. All participants in England provided both the MUR and NMS and all but one participant in Scotland provided the CMS. The one participant in Scotland who did not provide the CMS stated that her community pharmacy was in the process of commencing the service and was in the process of undertaking the required training.

Table 2: Demographic characteristics of study participants by Country (England and Scotland)

Variable	England (n = 12)	Scotland (n = 12)
Age	Mean age = 34.4 years, SD = 7.7	Mean age = 41.6 years, SD = 8.1
Gender	Male = 58% Female = 42%	Male = 58% Female = 42%
Ethnicity	White = 33% Asian = 25% Black = 42%	White = 83% Asian = 17% Black = 0%
Pharmacy Type	Multiple = 67% Independent = 33%	Multiple = 58% Independent = 42%
Pharmacist Role	Pharmacy Owner = 8% Pharmacy Manager = 75% Locum Pharmacist = 17%	Pharmacy Owner = 17% Pharmacy Manager = 75% Locum Pharmacist = 8%

Conceptualising self-care support of LTCs

In order to unpack how community pharmacists' conceptualized self-care support of LTCs, participants were asked to describe their understanding of the term 'self-care' before going on to describe if and how they supported patients to engage in self-care and the opportunities that they took to provide support. This allowed for insights to be gained into their conceptual understanding of self-care support and provided the baseline for further exploration of how self-care support was operationalised in practice using the core elements as a structure.

Understanding of self-care

All participants provided a description of their understanding of the term 'self-care' in relation to LTCs. The views of most participants on the meaning of self-care suggested that they understood its core principles which is about patients taking responsibility for their own health and care, and getting more involved in managing their LTCs. Many participants described self-care as activities that patients got involved in, to improve their knowledge, understanding and confidence of living with and managing their LTCs themselves, rather than being reliant on healthcare professionals and healthcare resources. There was a general consensus that patients undertaking proper self-care are required to take the lead in taking the necessary positive actions, making informed decisions and getting actively involved with their healthcare professional in how their health is managed to the extent that they became independent.

> *"um, self-care would be to the point where the patient obviously get enough knowledge about their condition, and about medications, that they are on to the point that they are quite confident and be able to effectively manage the condition through lifestyle, through taking their medicines…"* ***SCP014***

While discussing their understanding of self-care, almost all participants indicated that the use of medicines was the key self-care activity for patients, where the patients become knowledgeable on the importance of safely and appropriately taking their medicines. The majority of participants suggested this by using medicines-related examples to illustrate and describe what they understood as patients undertaking self-care. For example, some participants described self-care activities as patients knowing how to properly and safely administer and manage their medicines while at home, while some others suggested that self-care was when patients were able to adhere to their medicine regimen and deal with any problems they encountered with them in order to achieve the desired therapeutic outcomes. Some participants however also noted that, in addition to this medicines-related component of self-care, it also involved patients taking other actions such as undertaking self-

monitoring and symptom management or making lifestyle changes in order to effectively manage their LTCs. On the whole, what was overwhelming from the views of majority of the participants was that self-care was predominantly medicines-focussed as the use of medicines was viewed as being the top priority for patients in relation to other activities.

> *"Self-care, um, is that sort of just you know patients managing their own medicines and you know, sort of, you know, things like just measuring their own pressure, and having like a blood pressure machine to do that. And um, I suppose diabetics doing their own tests and things would be part of self-care."…**SCP019***

Engaging in self-care support

Participants allowed further insights into how they conceptualised self-care support by discussing if and how they supported their patients with LTCs to engage in self-care based on the description of self-care that they had provided. Almost all participants indicated that they were, in some ways, already engaged in providing self-care support. They suggested that they did this by providing patients with the necessary information and advice to enable them to undertake self-care. Self-care support of LTCs, according to most participants was about making patients more knowledgeable.

> *"um, I suppose it's just making them more knowledgeable isn't it, just kinda giving patients the information to be able to self-care I think, um, yea"….**SCP020***

Similarly to their description of self-care, most participants indicated that the primary focus of self-care support was to educate patients to make the best use of their medicines, although some participants also added that they also took the opportunity to address non-medications-related issues and/or offered other relevant information and advice to patients. A few participants however recognised that self-care support went beyond promoting the appropriate use of medicines. In particular, the participants talked about moving towards a more patient-focussed approach (inadvertently suggesting that their current approaches were not sufficiently patient-focussed), where they addressed patients' overall health needs rather than just concentrating on the use of their medicines.

> *"Ok. What also, um, having mentioned that, it's not just medications that we deal with, we also deal with lifestyle advice. So if you got a patient sort of, seem to be like diabetic patients, you sort of conducting the test, blood glucose, quite high, oh you need to recommend, oh you know, cut your blood sugar down, you know, and have more vegetables and all that, lose your weight. You know, doing that test and also um, you know advising the patient, they change their lifestyles quite dramatically. So I think you know, [we] moving towards self-care and also um, patient focussed approach. Yea, so, you know those patients needs to be addressed" **ECP006***

There was a general belief by many participants that self-care support was already being provided to patients by other HCPs (particularly primary care nurses) hence, their own self-care support roles were to reinforce what patients should already know. In particular, many participants shared this view when discussing their roles in providing patients with self-care information and advice.

> *"um if it's a LTC, you would have thought that all the other professionals would have provided relevant information at every stage, so when you come to speak to them, you are just reinforcing what knowledge they already have…**ECP004***

On the whole, most participants readily recognised the importance of self-care in helping people with LTCs to better manage their health. Some participants went further to discuss the benefits of self-care support to both patients and to them as HCPs. The participants indicated that supporting self-care support was important in; improving patients' health outcomes; reducing waste in the NHS; and relieving pressure on community pharmacists and other health professionals.

> *"I think that self-care is probably the most important thing in managing LTCs, I mean, the healthcare workers can only try to help the patient. But the patient is the one that has the major role, you know. I mean, things ranging from making sure you use your medications and you know, and I mean it think it's extremely important and it makes every other persons jobs easier" **ECP012***

Opportunities to provide self-care support

After providing insights into their conceptual understanding of self-care support of LTCs, participants went on to discuss the opportunities they took to provide self-care support in their community pharmacies. Unsurprisingly, almost all participants indicated that the core LTC services within their contractual frameworks – the MUR and NMS in England and the CMS in Scotland – provided the main opportunities for them to support self-care of LTCs. Most participants indicated that the majority of their LTC patients were on regular medicines and they simply dispensed these to them, unless they were due for their scheduled review or consultation (usually yearly), or if there was a change in medication, where they would fulfil their contractual obligations by providing the appropriate consultation service.

> *"in practice, there's a lot of repeat dispensing. So, obviously, we have the same patients that come in every month for their medication, medication that is stable, um, and it's just a case of dispensing them. So if there's anything new, then I'll just counsel them accordingly, but, a lot of times, you are over here sitting down with them to do an MUR, possibly once a year. Um, unless it's a new medication, do the new medicines service (NMS)". **ECP003***

While some participants indicated that they occasionally had interactions with patients over the counter when handing out prescription medicines, most participants admitted that the LTC services that they provided were sometimes the only contact that they had with patients with LTCs. Many participants suggested that when these services were introduced, they formalised and provided a contractual structure to the things that they were already doing in practice. They suggested that the LTC services provided them with a checklist of the things they had to cover with patients when providing the services.

> *"But I do find the CMS, I think, what it's done is it's given us a structure to kinda work through, because you walk through one part and you go and you kinda go through those questions. So it is good to kinda make sure that you've done all, I think it's questions that we've always asked…" **SCP024***

Operationalising the core elements of self-care support of LTCs

Information and advice

Having indicated that their self-care support roles were primarily about providing patients with information and advice through patient education, participants were then probed further about how they provided and delivered these information and advice. Most participants recognised that they were an important source of information to patients with LTCs although a few participants suggested that this was still a potential that had not yet been fully harnessed. It appeared that self-care information and advice was delivered to patients via the traditional patient education approach where they provided generic, structured information and advice, rather than by the self-care education approach which takes a tailored, personalised approach to identifying the barriers that may exist for patients to put the information into practice[13]. Participants suggested this by indicating that they provided patients with as much information and advice as they deemed necessary since they were usually very busy to spend the time to identify and assess the information needs of patients.

> *"So, yea, you can have a little chitchat, but in general if you want to get to the nitty-gritty, then, you have to be very direct and give as much information as possible, explain to them as much as possible. But like I said in pharmacy practice, if you are working in a busy store, you are never really going to get the chance to fully go through the ins and outs of patients' medicines."* ***ECP010***

After discussing a predominantly service-driven and medicines-focussed approach to providing information and advice, some participants had to be prompted to discuss if, and what other types of information and advice that they provided, particularly with supporting lifestyle change. Some participants went on to indicate that they provided lifestyle support services such as stop smoking schemes, weight management programmes, NHS health checks, screening services such as blood pressure and cholesterol testing, and health lifestyle promotion through the display of leaflets.

> *I advise them on what it should be, um, but, you know it's the follow up, that's it, that's the hardest thing, following up…. We do, like free blood pressure monitoring, we do um, we check their weights, check their BMI, things like that….um, we do blood glucose monitoring for free. So, if anything is highlighted from there, then obviously, you advise them accordingly, so um, if your blood pressure if high, you say ok, moderate exercise, diet. Maybe advise them on what proportion of, you know, um, meat they should have in their diet, and what proportion of you know, carbs and etcetera. If they are really overweight, then, we do like a lipotrim diet. I might recommend them to go on that.* ***ECP003***

However, it appeared that lifestyle support was mostly undertaken opportunistically during interactions with patients with LTCs as many participants indicated that they would only normally

offer lifestyle information and advice when the opportunity came up during their conversation, or when a patient requested a related service or product (e.g. smoking products).

> *The only time though you may have to do lifestyle counselling or intervention is when um, a patient requests for a product for example like quit smoking. So, at that point, that's an opportunity for you to um, chip-in some lifestyle advice or counselling really at that point. Um, but other than that, you don't, if you are handing out scripts, as long as you know you have established that the patient knows what he/she is doing with the medication, you don't offer any lifestyle advice.* ***ECP007***

Some participants also indicated that most patients had already been provided with the relevant self-care information by other healthcare professionals (mainly doctors and nurses), and that their roles were essentially to reinforce this information. In addition, some participants also suggested that they sometimes avoided providing patients with too much information in order to avoid overloading them. They indicated that they would rather provide the basic information and encourage the patient to contact them if there was anything that was unclear to them.

> *"um, usually, one of the things that I would do in fact, I do it with every prescription is to say if you get home, and you have any other questions, my name is [named pharmacist] and I write it on the bag label, and the telephone number is at the bottom….And they have just been in the consultation with the GP, they are just coming to you. So, leaving that door wide open and saying you can phone us anytime, it's not a problem, even if it is simple things, don't worry about it, just phone and ask."….****SCP013***

Participants had different views on how they thought patients used the self-care information they provided to them. While some participants indicated that they had a duty to ensure that the information they provided made patients more knowledgeable to make informed decisions, some other participants suggested that their responsibilities ended with providing the information and patients would ultimately decide on what they did with the information. The latter participants went on to indicate that most patients, especially those that had been taking the same medications for some time were quite knowledgeable already and that there was no point in repeating the same information to them.

> *"You are giving out the medication which patients have been taking for years, there is no point though, referring such patients. You don't even bother to ask whether the patient is um, if they've had their medications before, so you assume that they know what they are doing with the medication"* ***ECP008***

Skills training and support

Participants were asked to discuss self-care skills in relation to patients' needs, and if and how they provided support in helping patients to acquire these skills. Many participants initially struggled to identify any self-care skills that they supported and had to prompted with examples in some cases. The skills discussed with participants include coping skills to deal with the impact of LTCs, self-

monitoring of LTC signs and symptoms, use of self-monitoring tools and devices and support with self-administration of certain medicines (e.g. inhalers and insulin injections). Most of the discussions with participants however were centred on skills training and support with the use of self-monitoring tools and devices and with self-administration of certain medicines.

Use of self-monitoring tools and devices

The majority of participants indicated that their involvement in skills support was limited to supplying patients with self-monitoring tools and devices. Most participants mentioned blood pressure monitors (digital sphygmomanometers), blood glucose monitors (kits and strips) and cholesterol test kits that they had for sale in their pharmacy stores. They however suggested that they would not proactively offer patients these devices unless patients made specific requests for them. Participants also pointed out that once they had sold the device to patients they rarely got involved in how patients used the tools and devices, or in interpreting the results and clinical signs, unless there was a request for help by a patient. Many participants however further stated that they would prefer to refer patients back to their GPs if there were any concerns about the test results.

> *"The best time is when somebody gets the first treatment for blood pressure, and then I would be, um, encourage them to purchase and have it in place, that they could check it, not necessarily every 15 minutes, but just regularly and not worry unduly about it, but to keep an eye on the situation and if there are any changes they can then speak to the GP…. that's an area where I probably would be even, I'll say if it…speak to your GP, but again that could be um, a CPD point I could develop."* ***SCP018***

In addition to supplying self-monitoring tools to patients, some participants indicated that they had free health check services like blood pressure service and body mass index (BMI) checks which they offered to patients with LTCs as well as to the general public that visited the pharmacy. When probed further about supporting patients with self-monitoring at home, some participants said that they did not proactively encourage patients to engage in this because they were cautious that some could get unnecessarily worried about fluctuating readings. Participants indicated that while they sometimes provided advice to patients about the general use of self-monitoring devices, they would mainly refer them back to their specialist nurses if the patient had any concerns.

> *"A lot of patients now have their own [BP] machines… sometimes, I worry that they get too overly involved. So, cholesterol checking and like glucose measurements frighten me because of the training I've had... Just saying you know, that's just such a snapshot, if they are really worried you know, come and see the nurses or whatever. So when they come in and ask for that, we explain obviously what it may be and then refer them to the Surgery. And the nurses there, they've got lead nurses in each practices,"* ***SCP024***

Support with self-administration of medicines

For LTCs like asthma and Chronic Obstructive Pulmonary Disease (COPD) that require patients to self-administer medicines with different types of inhalers and volumatic spacer devices, participants indicated that they provided support to patients with using these devices correctly during medicines consultations, e.g. MUR or CMS. There were however indications from a number of participants that they only got involved with this opportunistically. They indicated that they assumed that patients already knew how to use these devices because they were already being seen by their specialist (asthma) nurses or GPs and would have been shown how to use these devices. They suggested that, while they would offer support to patients that made requests for help, they would usually refer most of them back to their GPs and nurses.

> *"Many of them have been shown how to use, because a lot of them you'll say, but do you know how to use the inhaler, they say, yes, the doctor showed me but I didn't quite understand it. So, most of them have been shown how to use it, wherever, either by the GP or the nurse."* ***ECP001***

Support networks

Participants were asked about their knowledge and use of support networks or groups when interacting with patients with LTCs. Many participants initially appeared unsure about this and had to be prompted with illustrations and examples that support networks included individuals, organisations or resources, within or outside the healthcare sector, where patients could get more information and/or support with living with their LTCs. There was a consistent theme among most participants that the patient's GP or nurse was the first point of call if they perceived that there was an issue that they could not handle. When probed further about patient self-help/support groups, most participants indicated that they were aware of national support groups that focused on different types LTCs (e.g. British Heart Foundation), or local lifestyle support groups.

> *"um, in terms of local groups, there is, we can refer them into the kind of smoking cessation um, groups as well. There is some referral pathways within [named support group], which is the alcohol pathways, I think it's called [another named support group], is one of the ones you can refer them into, um, to get people help with their alcohol consumption. "****SCP022***

While signposting to these types of support groups is an essential component of the English community pharmacy contract, it appeared that most participants did not actively get involved in this.

> *"Um, there are support networks, however, I personally have not recommended that, oh, go to, other than going to see their, say diabetic nurse or asthma nurse, or, um, I've not recommended any support group personally."* ***ECP005***

The reason for this is not very clear, but a few participants reflected that although they knew of these groups, the reason for not using them maximally to support patients was attributed to the fact that they were not too confident about providing appropriate information about the groups to patients.

> *"Um, but generally, no, I wouldn't say I do that particularly regularly….well, yea maybe it's just that we feel unconfident, I don't really know myself, exactly, where that could go for help. Um, we kinda you know, I've heard of these things, but you know, I don't know that patients would sign up to get emails or whatever. So it's probably just the fact that I don't know myself."* ***SCP019***

On the whole, it emerged that participants had limited awareness of patient self-help/support groups. Some participants indicated that they had a list and contact details of patient self-help groups, but it appeared that they were not proactively signposting patients to these groups. Some participants indicated that they predominantly referred patients to these groups during dedicated periods of health promotion campaigns, or when the groups approach them to display their leaflets and posters.

> *"Um, unless, you know, as part of the public health campaign, the PCTs might ask us to carry out some self-care campaigns for them, get involved with like, displaying posters, establishing you know, what services are available, um, when and how to see the doctor, how to refer themselves and things like that."* ***ECP007***

Technology

Participants were asked about their knowledge, awareness and use and any forms of self-care technologies in supporting patients with LTCs. There was a general consensus among almost all participants that the use of self-care technologies to support patients with LTCs in community pharmacy was very limited. Most participants referred to the use of telephone (to follow up or make enquiries) and internet technologies (mainly via signposting patients to relevant websites) as the main way of using technology to support their patients. A few participants however described one-off, innovative approaches in supporting self-care with technology where they helped to meet particular patients' needs, for example, in using a patient's smartphone to set alerts/reminders about medicines use and appointments to improve adherence.

> *"We have tried um to help a patient in the past with regards to timings of medication, with Parkinson's disease. Um, and the women were saying I just cant get to grasps if I don't know what am going to do. Um, and the girls programmed her mobile phone with the times, so that that would go as an alarm. So simple things like that make a lot of difference to patients you know. Um, coz she's like I don't even know how you work the phone, and one of the girls said let me show you how to do it coz I would be rubbish [laughs]. The girl said no no, its really, like you know and it would off at those times every single day. So compliance was much better, yea, that makes a difference."* **SCP018**

On the whole however, participants indicated that although they were aware of emerging technologies such as tele-health and mobile application technology ('apps') available to patients with LTCs, they were not currently using these to support patients. Most participants however recognised that there was a potential place for such technologies in community pharmacy, in particular with mobile technology to support patients with taking their medications, since almost all their patients now had smart phones.

> "No, but it's certainly something I think we should be getting involved in because it's the way forward and other industries are certainly doing it. And I guess I'm also conscious of the fact that if we don't do it, someone else will" **SCP013**

Collaborative care planning

Collaborative care planning, which is at the centre of the implementation strategy for self-care support of LTCs, is a process where both the healthcare professional and patient bring together their expertise to offer personalised support to the patient.[50] While almost all participants recognised the importance of collaborative care planning in helping patients to change behaviours to manage their LTCs, it appeared that they were not engaged in using this strategy in their interactions with patients. There was a general agreement among most English participants that care planning was beyond the remit of their responsibilities as community pharmacists. They indicated that it was more of the responsibility of the patient's direct care teams in GP surgeries (doctors and/or nurses), especially since they had access to individual patient's information and records. Some participants however indicated they had previously been informally involved in aspects of care planning, particularly around a patient's medicines and inferred that their contributions were of value.

> *"Well, my opinions of things like care-planning, I think it's the nurses, the doctors and all that that draw the care-plans. Not us in the community, yea... Yea, it would be nice for the pharmacist to input in the care-plan and to see how we can work it. Sometimes, we do get involved, um, especially, between carers, coz we've had some patients where they've had difficulties with medication, say, um, they can only get carers in the morning and teatime, and we've put tablets at night time. So they ring us, so what do we do, should we combine it with morning, should we give it at teatime, is it safe. We do get involved in things like that. So, it would be nice, say, if a pharmacist was there when all the decisions were being made. And the pharmacists can say, oh, this, this and that can work. So yea, rather than when the whole decisions have been finalised…"* ***ECP005***

Even among Scottish participants who are contracted to provide pharmaceutical care planning as part of the Chronic Medication Service (CMS), their views suggested that they did not engage collaboratively in care planning with their patients and/or other healthcare professionals. From the ways that participants described the involvement of patients in the pharmaceutical care planning process, it appeared that they basically got patients to consent to taking part in the service, rather than getting them to be actively involved in the process. Care planning as described by participants involved the pharmacist identifying and reviewing any pharmaceutical related issues that the patient might be experiencing and informing and educating patients about it, and then recording it in the appropriate paper work.

> *…it's agreed with the patient, well the patient, from it yea, you would conduct the care plans, the patient knows what you are doing, and then that gets all recorded. You review anything that is necessary to review..."* ***SCP014***

A prerequisite to undertaking effective collaborative care planning is that healthcare professionals see patients as active partners and involve them in making decisions about the care of their LTCs. While most participants indicated that they had good relationships with the majority of their regular patients with LTCs, it appeared that their interactions with them were more paternalistic rather than active partnerships. While some participants indicated they had 2-way discussions with their patients and asked open questions in order to elicit discussions, most suggested that they mostly provided the information and advice that they deemed were necessary. However, most participants having acknowledged the difficulty of getting patients to come forward with information during their conversations with them, stated that having an open kind of conversation would gradually put patients at ease with them and more willing to open up and work in partnership. A few participants also suggested that might sometimes use their own personal experience to help patients in making decisions.

> *"yea, well, you provide them with information anyway. You can advise them that you think this is the best, but it's still up to them really….If you have had experience with some of these medications, I'll say oh yea, I know this treatment, I've tried it and I've had. So yea, personal preference might be giving them more information about it so that they can make their informed choice."* ***ECP011***

An essential component of collaborative care planning in self-care support is goal-setting (or implementation intentions) and active follow-up which aims to help effect and sustain behaviour change. Analysis of participants' views suggested that active goal-setting and follow-up were not implementation strategies that were routinely used in community pharmacy practices unless they were delivering contracted services that had goal-setting and follow-up built into them. For instance, when talking about goal-setting and follow-up, almost all participants described the smoking cessation service, weight management service and the New Medicine Service (NMS) in England as situations where they helped patients to set goals and follow-up.

> *"yea we do… you might do that [set goals and follow-up] when you sell them some products or when you offer the stop smoking service, or like patients on medication for obesity like Orlistat. Um, part of the things you do is to agree with patient um, their goal really. Because over certain period, you expect them to have lost certain weights. So you can agree with them that well, over certain period, other things being equal, we expect you to have lost this weight, or you have achieved this state really…. Um, smoking cessation as well, you can do that with them when you say, when do you want to quit smoking? You agree with them, when do you want to quit smoking, you know, by so, so week, you should have quit…yea, so you that."* ***ECP007***

On the whole, many participants acknowledged that they were currently not implementing many aspects of collaborative care planning and identified this as a weakness of community pharmacy practice. Many participants however indicated that they encouraged patients to check back with them if they had any concerns about their LTCs.

> *"again that's probably one of the weaknesses where in pharmacy we don't really support the change of somebody who comes down. Um, what I can do sometimes is to say, look if you are struggling, come back and see me." …**SCP023***

Barriers to providing self-care support

While almost all participants recognised community pharmacy's potential to contribute more in managing LTCs and supporting self-care of LTCs, they also identified and discussed barriers that hindered them. Some participants identified and discussed specific barriers to operationalising aspects of the core elements of self-care support while some others discussed the broader barriers to providing general support and patient-centred care to people with LTCs. One of the main barriers that was shared by almost all participants however, was the current nature of their professional roles, which still required them to spend the bulk of their time in the dispensaries to prepare and check prescriptions, with little time to spare to interact with, and support patients.

> *Um, I think there's um, I think we haven't got there yet, as a profession, um in community. We are not there yet. We are restricted in the roles that we are in because we are busy in the dispensaries, so, especially, a lot of the independents, um, so, it is difficult to be able to get the time to play more of a role in terms of long-term conditions. …**ECP008***

In particular, many participants suggested that increasing volume of prescriptions and inadequate support staffing levels were increasing their workload, making it more difficult for them to find the time to speak with patients. Some participants however believed that these barriers were not insurmountable and went on to share their experience of some of the ways that they were tackling some of these challenges. One participant believed that the right support team could be developed over time to free up the pharmacists' time to speak with patients.

> *And I think we are doing some work on that because if you are sole pharmacist in a really busy pharmacy, and you maybe don't have the support team in place, that can be tricky. We are lucky, we've worked hard over the last 5 years to get the support team there, and often I think we need 2 checking technicians and not just one, to let the pharmacists to go and speak to the patients. But um, well baby steps, we are getting there. …**SCP018***

However, not many participants were optimistic about how the underlying factors that hindered them from creating the time to speak to patients could be addressed. Many participants stated that with the current structure of community pharmacy, they did not think that they would be able to free up their time away from the dispensary because of growing patient population with increasing prescription workloads

> *well, the truth is I don't see us spending more time with our patients, if anything we are going to spend less time because the patient population is growing and the demand for pharmaceutical care [prescriptions] is growing. So, pharmacy profession is getting under more pressure really to deliver those services within less time, so, I don't see it happening….**ECP007***

Many participants also identified the funding structure of the contractual services and activities that they currently provided to patients with LTCs as being another important barrier to providing self-care support. This view was particularly shared particularly strongly by participants in England, where they indicated that there were currently no incentives within their contracts for them to provide self-care support since their main source of revenue was based on the number of prescription items, as well as on a target number of services (MURs and NMS). Many of these participants also stated that, in order to remain in business, their employers were more interested in community pharmacy services and activities that generated revenue rather than on activities such as self-care support, that put demand on the scarce resource of the pharmacists' time.

> *So the only real time we will sit down with the patient is during the MUR. Yea…the barriers are that we are restricted to, we have at to be at the pharmacy [dispensary]. The pharmacy [dispensary] can't function without us. Um you know, that's probably the biggest barrier. And employers, um, will look at um, what's in it for them, its money. Um, you know, because they are out to make money, the patient care um, isn't really given the priority, unless, there is a monetary value attached to it. ...**ECP012***

Participants also discussed patients' awareness and expectations of the role of community pharmacy in the care of their LTCs as a barrier to providing self-care support. While participants generally agreed that some patients valued the interventions and support activities that community pharmacy provided, most participants believed that many patients are yet to fully understand the support roles that community pharmacy could play, aside supplying them with their medicines. For example, in the quote below, the participant talked about her reluctance to provide inhaler technique support to patients because patients perceived that the pharmacy setting was not the right place for that, hence, her support roles were limited to 'friendly advice'.

> *And maybe we can give advice on inhaler techniques as well, but um, patients can be quite strange, they could be quite rare, not too bothered to talk about it, they can be quite rare to come and have consultation with me and sort of be seen that way, you know, they've got their asthma nurse, you know, and they would see those along in the surgeries. So, they are happier to see, you know, maybe people like that in the GP setting. But in the pharmacy setting, there is very much this tendency towards, you know, your customer would rush in, get their medications and thank you, run out again. That's kind of all they want from you. Some patients are different but certainly, so we tend to limit our interaction in terms of long term care, to sort of friendly advice….**SCP017***

Most participants went on to identify and discuss other barriers that hindered their individual contributions to self-care support, such as communication and working relationship with other HCPs and the need to improve their knowledge, understanding and confidence in specific areas of self-care support. On the whole, many participants expressed the belief and willingness that they could contribute more to self-care support of LTCs.

> *we would love to do that (collaborative care planning), but unfortunately, the way pharmacy is setup at the moment, we are not able to access that and we seem to be pushed. And to think we are cheaper than the specialist nurses, we'll love to. The fact that we have these rooms, so, with some extra training, we would want the extra training, we want to do it well.*

> *As a pharmacist, speaking for myself, we would love to take on some of these roles. …**ECP002***

Despite the barriers discussed, most participants appeared to be cautiously optimistic of community pharmacy playing a key role in future, in self-care support of LTCs. Some participants believed that the key challenge for community pharmacists lies in how to combine new roles and make the transition from their traditional dispensing roles and responsibilities to a patient-centred, self-care support role. The quote below sums up the views of most participants on whether self-care support of LTCs in community pharmacy could be operationalised in practice.

> */yea, I don't see why that shouldn't be the case, you know, I think pharmacists are definitely capable of doing it [taking a lead in self-care support], we've got enough knowledge….I can't comment on England, but I think in Scotland, there is a transition from working from basically, dispensing prescriptions, from counting beans, putting tablets out, you know, looking at the interactions and basically deal with that, to a more patient-centred approach. I think it's quite a difficult shift. Maybe it isn't, maybe that's my perception….But um, I think that marrying up, doing prescriptions and actually speaking with patients the whole time which is what seems to be the way that pharmacy is going, is um, is quite difficult. I don't see, I just can't see in my head how the 2 marry up, and how you can maybe effectively run both things, um, presumably there is a way of doing it [laughs], but um, I've not heard of it yet….**SCP017***

DISCUSSION

There were no notable differences in the views of participants in England and Scotland despite the differences in the ways that community pharmacy LTC services are organised and delivered in both countries. This study showed that while community pharmacists had some general understanding of the theoretical principles of self-care of LTCs, they did not translate this to the systematic practice of self-care support. Participants suggested that self-care support in community pharmacy was primarily about providing patients with the information and advice to enable them to undertake self-care. While information and advice helps to improve patients' knowledge and understanding on how to care for their LTCs, there is clear evidence that providing information and advice alone is insufficient in effecting and sustaining behaviour change.[8] Many successful self-care support interventions are grounded and underpinned by theories of human behaviour[4] and incorporate active behaviour change techniques such as cognitive behavioural therapy, behaviour change counselling and motivational interviewing in helping to change patient behaviour.[78] Self-care support interventions utilise these targeted behaviour change techniques to ensure that information and advice provided to patients results in improved self-efficacy,[79] which in turn results in behaviour change. Some participants in this study discussed certain instances where they used behaviour change techniques to provide information and advice to patients, for example in the use of goal-setting and proactive follow-up when providing lifestyle services like stop smoking interventions. While they provided anecdotal

806 evidence of the success of these interventions, it appeared that they did not apply these techniques
807 in their routine practice and only used it because it was part of a service.

808 This study explored how the core elements of self-care support were described and operationalised
809 by participants. In general, participants appeared to freely discuss the core elements of information
810 and advice and collaborative care planning, while probes and cues were used extensively to encourage
811 them to discuss skills training, support networks and technology to support self-care. On the whole,
812 it was found that operationalisation of self-care support of LTCs in community pharmacy was more
813 opportunistic and reactive, rather than systematic and proactive. Information and advice provided to
814 patients with LTCs focuses predominantly on the use of medicines while other information and advice,
815 for example to improve lifestyle, is provided opportunistically. Furthermore, it also appeared that the
816 approach taken by community pharmacists to provide information and advice to patients during a
817 consultation followed the didactic, traditional patient education approach, rather than the patient-
818 centred, self-care education approach.[13] This approach has been conceptualised by some authors as
819 being a transmission model, rather than a transaction model.[80] While the nature of the community
820 pharmacist-patient consultation was not within the scope of this study, this finding was consistent
821 with those of other studies that examined the pharmacist-patient interaction, which found that
822 interactions were characterised by very brief, one-way communication, with the use of closed
823 questions and a focus on information about medications.[80-82]

824 Skills training and support is an aspect of self-care education where patients are actively supported to
825 learn and acquire specific skills that empowers them to live and care for their LTCs.[83] While the self-
826 care skills training and support required by patients vary according to their individual needs, this study
827 found community pharmacists do not currently provide active skills training and support in their
828 routine interactions with patients. There may however be opportunities that community pharmacists
829 can take to support patients, for example, when they supply patients with self-monitoring devices,
830 they could take the opportunity to support patients in the correct use of the device as well as in
831 ongoing monitoring and interpretation of the test results. Similarly, it was found that other types of
832 skills training and support, such as in helping patients with their inhaler techniques are mostly
833 undertaken opportunistically, rather than proactively in community pharmacy. There is evidence of
834 incorporating skills training and support in inhaler techniques into routine community pharmacy,
835 through the commissioning of services such as the Greater Manchester Community Pharmacy Inhaler
836 Technique Service.[59] However, in the report on the evaluation of the service[59], it appears that the
837 focus of this service is more about the inhaler itself (medicines-focussed), rather than on other
838 important determinants of good asthma control (patient-centred care). This further reinforces the

finding that community pharmacists' approach to providing self-care support is focused on how the medication worked for the patients (medicines-focussed approach), rather than on how patients used their medicines (patient-centred approach).[43]

Support networks and the use of technology are now increasingly being recognised as important elements of self-care support of LTCs, although they have not been given as much consideration in research as the other elements. This study however found that community pharmacists do not currently routinely engage with these elements in their interaction with patients with LTCs. For example, with support networks, community pharmacists in England are contractually required to refer and signpost patients with LTCs to support groups but this study found that participants tended to do so only opportunistically. The study found that in community pharmacy, there was even less awareness and use of any innovative technologies such as smart phone applications and telemedicine to support self-care for patients with LTCs. This finding, in addition to the dearth of published studies that have examined support networks and use of technologies in self-care support further demonstrates the limited service provided by community pharmacy to people with LTCs.

Collaborative care planning is at the heart of the framework of the core elements of self-care support, and this reflects its central role in bringing together all the other elements at the point of interaction between the patient and the HCP. Many other models of care of LTCs, such as the Five A's of self-management support[84] and the 'house of care' model[50] include collaborative care planning as their central component. Collaborative care planning is an interactive, cyclical process where both the patient and the HCP are involved in the care process, and includes steps such as action planning and documentation, goal setting, proactive follow-up.[50,84] The findings from this study also indicate that collaborative care planning is not yet seen as part of community pharmacy practice in the management of LTCs. However, a recent study provided evidence that pharmacists can help patients with asthma to set and achieve their asthma management goals if collaborative goal setting is incorporated into community pharmacy's strategy for managing asthma.[85] Also, proactive follow-up is an essential part of collaborative care planning, to review and reinforce goals set with patients. Yet, this study found that it is not undertaken routinely and systematically in community pharmacy, unless a service such as the NMS was being provided.

The main barriers to providing self-care support according to participants in this study include; priority accorded to dispensing in community pharmacy; the structure of the current NHS community pharmacy contractual framework; lack of incentives for self-care support of LTCs; and patients' expectations and lack of awareness of community pharmacy's potential. These barriers are similar to

those of other studies that have qualitatively examined community pharmacy's enhanced roles in supporting LTCs.[86] Community pharmacy's professional identity has traditionally been defined by its role in dispensing medicines;[87] hence it is not surprising that self-care support of LTCs is medicines-focussed.

However, the landscape of healthcare services for LTCs has now changed towards a more pluralistic and patient-centred one, which focuses less on medicines but more holistically on the patient. Meanwhile the nature and range of services provided by community pharmacy are shaped by the NHS pharmaceutical contractual framework which is largely based on fee-per-service/item remuneration. Moreover, some studies have found that the quality of many of these community pharmacy services is substantially influenced by pharmacy owners' commercial interests.[88,89] This context and approach is likely to curtail the motivation of community pharmacists in providing support in a more patient-centred way. In order for community pharmacy to contribute meaningfully to the self-care support paradigm, there is a need to significantly rethink and redesign how pharmacy LTC services are organised and delivered, as well as how pharmacists (and pharmacy staff) are remunerated and incentivised to provide self-care support. Recognition of the fact that community pharmacy (and pharmacy profession as a whole) is yet to realise its potential in contributing to, and improving patient care has led to recent and ongoing consultations and debates in the UK about the future shape and scope of community pharmacy.[90,91]

Strengths and limitations

This study explored the perspectives of a small sample of community pharmacists in England and Scotland on their understanding of self-care support as a concept in the management of LTCs and how they applied this concept in their professional practice. The maximal variation sampling strategy adopted in this study ensured that participants that were sampled reflected the variety of community pharmacists working in practice. A limitation of this study was that a single coder was used in the coding and interpretation process of the data analysis and respondent validation of the final coding framework was not undertaken. However, validation of the data coding and interpretation was enhanced via regular review and agreement of the data analysis process by the coder's supervisory team which consisted of 3 academic researchers with acknowledged experience and expertise in qualitative data analysis.

To the best of our knowledge, this is the first time that self-care support as a distinct concept in the management of LTCs has been explored among community pharmacists in the UK. In addition, this study examined community pharmacists' views in relation to the wide range of LTCs that they

encountered in practice, rather than focussing on specific single diseases, which is reflective of the real world scenario, since people with LTCs often live with multiple co-morbid conditions. The majority of other studies that have examined the potential of community pharmacy practice to undertake self-care support have focused on single LTCs such as diabetes and asthma. The process of designing and developing this study lead to the emergence of a single framework which summarised the core elements of SCS of LTCs. To the best of our knowledge, no similar framework of this such exists in the community pharmacy literature and this framework may be used to inform and design interventions and future work in this area.

CONCLUSION

Healthcare services and the healthcare needs of patients with LTCs are changing significantly. Self-care support and other related concepts such as patient-centred care, shared decision-making, patient involvement, patient empowerment, now indicate the direction of travel in which healthcare services are heading. The self-care support agenda is the future in the management of LTCs and community pharmacy needs to identify and delineate its contributions to self-care support and also engage with the wider multidisciplinary teams in primary care to implement it. The language and structure of self-care support in community pharmacy needs to be aligned with that of the wider healthcare team. Future work is currently being undertaken to establish how generalizable the findings of this study are in a much larger, statistically-representative survey of community pharmacists in England.

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